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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/915,091
Filing Date: July 25, 2001
Appellant(s): Schmidl et al.

Robert N. Rountree
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 1, 2005 appealing from the Office Action mailed November 3, 2004.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The Examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The Appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The Appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,907,812	VAN DE BERG	5-1999
5,574,979	WEST	11-1996
6,327,300 B1	SOUISSI ET AL.	12-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3, 5, 8-10, 12-16, 18-20, 22, 24-26, 29, 30, and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by **Van De Berg (U.S. Patent # 5,907,812)**.

Consider **claim 1**, Van De Berg clearly shows and discloses a method of selecting a plurality of carrier frequency bands for use in a desired radio (wireless) communication from a among a plurality of carrier frequency bands available to be used for the desired radio (wireless) communication (abstract, figures 2 and 4, column 2 line 65 - column 3 line 6, and column 3 lines 38-48), comprising:

scanning (passively monitoring) the plurality of carrier frequency bands to determine interference information for each of the carrier frequency bands (abstract, figures 2, 4, and 7-9, column 2 line 65 - column 3 line 17, column 3 lines 38-48, column 4 lines 27-39, column 7 lines 48-65, and column 9 lines 4-17);

combining the interference information of said each of the carrier frequency bands to produce a signal quality indication (i.e., results of the scanning (passively monitoring) are combined to determine an interference-free (which indicates good signal quality) frequency band comprising said each of the carrier frequency bands) (figure 7 steps 2-6 and column 9 lines 4-44); and

selecting the plurality of carrier frequency bands for the desired radio (wireless) communication in response to the signal quality indication (abstract, figures 2, 4, 7-9, column 3 lines 1-6 and 11-17, column 5 lines 8-12, and column 9 lines 9-30).

Consider **claim 3**, and **as applied to claim 1 above**, Van De Berg further shows and discloses that said scanning (passive monitoring) step includes monitoring interference associated with the plurality of carrier frequency bands (abstract, figure 7 step 3, figure 8 step 13, figure 9 step 24, column 3 lines 1-6 and 11-17, column 9 lines 6-8, column 9 lines 57-62, and column 10 lines 46-50).

Consider **claim 5**, and **as applied to claim 1 above**, Van De Berg further shows and discloses that said plurality of carrier frequency bands are narrow frequency bands (e.g., C_2, C_3, C_4, C_5, and C_6) comprising a wide frequency band C^1 (figure 2, figure 7 steps 2-6, column 7 line 48 - column 8 line 6, and column 9 lines 4-30).

Consider **claim 8**, and **as applied to claim 1 above**, Van De Berg also discloses that said scanning (passive monitoring) step includes each of two wireless communication stations 30, 34, 40 (figures 11-13) scanning (passively monitoring) at least some of said plurality of carrier frequency bands (column 2 line 65 - column 3 line 7, column 5 line 21 - column 6 line 2, and column 14 lines 1-8).

Consider **claim 9**, and **as applied to claim 8 above**, Van De Berg further discloses the step of including one of said wireless communication stations 30, 34, 40 communicating with the other of said wireless communication stations 30, 34, 40 regarding results of said scanning (passive monitoring) (figures 11-13, column 5 line 21 -

column 6 line 2, and column 14 lines 1-8).

Consider **claim 10**, and **as applied to claim 1 above**, Van De Berg also shows and discloses that said scanning (passive monitoring) step includes scanning (passively monitoring) a plurality (group) of available carrier frequency bands (abstract, figures 2, 4, and 7-9, and column 9 lines 3-21), and inherently tuning a filter (not shown) to each of said plurality (group) of available carrier frequency bands (i.e., in order to process each of the available frequency bands a filter must be tuned to each available frequency band) (column 12 line 40 - column 13 line 5).

Consider **claim 12**, and **as applied to claim 1 above**, Van De Berg further discloses that said selecting step includes the wireless communication station 30, 34, 40 selecting the plurality of carrier frequency bands for the desired radio (wireless) communication and informing another wireless communication station 30, 34, 40 of the selected carrier frequency bands (column 12 line 40 - column 13 line 5 and column 14 lines 1-8).

Consider **claim 13**, Van De Berg further shows and discloses a wireless communication station 30, 34, 40 (figures 11-13) comprising:

an antenna 31, 35 (figures 11-13) for use in wireless communications (column 12 lines 3-7 and column 13 lines 42-48 and 57-62);

a band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) coupled to said antenna 31, 35 for selecting a frequency band for use in a desired radio (wireless) communication from among a plurality of frequency bands available to be used for the desired radio (wireless) communication (abstract, figures 2 and 4, column 2 line 65 - column 3 line 6, column 3 lines 38-48, column 5 line 52 - column 6 line 2, and column 6 lines 20-40);

said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) operable for scanning (passively monitoring) at least one of the available frequency bands to determine whether the at least one frequency band is acceptable for the desired radio (wireless) communication (abstract, figures 2, 4, and 7-9, column 2 line 65 - column 3 line 17, column 3 lines 38-48, column 4 lines 27-39, column 5 line 52 - column 6 line 2, column 6 lines 20-40, column 7 lines 48-65, column 9 lines 4-17, column 12 lines 41-51);

said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) operable for selecting a bandwidth of the at least one available frequency bands (e.g., the bandwidth of the at least one available frequency band is selected, if deemed acceptable, to form, by itself or in combination with other acceptable available frequency bands, the at least one frequency band for the desired communication) (figure 7 and column 9 lines 1-30); and

said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) further operable for selecting the at least one frequency band for the desired radio (wireless) communication if the at least one frequency is determined to be acceptable (abstract, figures 2, 4, 7-9, column 3 lines 1-6 and 11-17, column 5 lines 8-12, column 5 line 52 - column 6 line 2, column 9 lines 9-30, and column 12 lines 41-60).

Consider **claim 14**, and **as applied to claim 13 above**, Van De Berg also discloses that said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) includes a scanning means 52 (interference monitor) for monitoring interference associated with the at least one frequency band (column 6 lines 30-40 and column 12 lines 40-46).

Consider **claim 15**, and **as applied to claim 14 above**, Van De Berg inherently discloses that said scanning means 52 (interference monitor) must include an RSSI measurement apparatus since it is disclosed that said scanning means 52 (interference monitor) performs signal strength measurements (column 6 lines 33-37).

Consider **claim 16**, and **as applied to claim 13 above**, Van De Berg further shows and discloses a wireless communications interface (transmitter & modulator 44 and receiver & demodulator 45) (figures 11-13) coupled between said antenna 31, 35 and said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13), said wireless communications interface (transmitter & modulator 44 and receiver & demodulator 45) cooperable with said band selection controller (combination of scanning means 52 and central control and application logic 51) and said antenna 31, 35 for communicating to another wireless communication station 30, 34, 40 (figures 11-13) information indicative of a result of said scanning (passive monitoring) operation (column 5 line 21 - column 6 line 2, column 6 lines 20-39, column 12 line 41 - column 13 line 5, and column 14 lines 1-8).

Consider **claim 18**, and **as applied to claim 13 above**, Van De Berg inherently teaches that said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13) includes a filter (not shown) coupled to said antenna 31, 35 for tuning to each of a plurality (group) of available frequency bands (i.e., in order to process each of the available frequency bands a filter must be tuned to each available frequency band) (column 12 line 40 - column 13 line 5), said band selection controller (combination of scanning means 52 and central control and application logic 51) including scanning means 52 (passive monitor) coupled to said filter (inherent as explained above) for scanning (passively monitoring) each of said plurality (group) of available frequency bands (abstract, figures 2, 4, and 7-9, column 9 lines 3-21, and column 12 lines 40-60).

Consider **claim 19**, and **as applied to claim 13 above**, Van De Berg further shows and discloses a wireless communications interface (transmitter & modulator 44, receiver & demodulator 45, and scanning means 52) (figures 11-13) coupled to said antenna 31, 35 for interfacing between said antenna 31, 35 and a communications application (e.g., cordless telephone), said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13), including scanning means 52 (portion of said wireless communications interface (transmitter & modulator 44, receiver & demodulator 45, and scanning means 52) (figures 11-13 and column 12 lines 41-60).

Consider **claim 20**, and **as applied to claim 19 above**, Van De Berg inherently teaches that said scanning means 52 (portion of said wireless communications interface) includes a filter (not shown) for tuning to the at least one frequency bands (i.e., in order to process the at least one frequency band a filter must be tuned to the frequency band) (column 12 line 40 - column 13 line 5) and an RSSI measurement apparatus coupled to said filter for providing an RSSI measurement with respect to the at least one frequency band since it is disclosed that said scanning means 52 (portion of said wireless communications interface) performs signal strength measurements (column 6 lines 33-37).

Consider **claim 22**, Van De Berg clearly shows and discloses a method of selecting a frequency band for use in a desired radio (wireless) communication from a among a plurality of frequency bands available to be used for the desired radio (wireless) communication (abstract, figures 2 and 4, column 2 line 65 - column 3 line 6, and column 3 lines 38-48), comprising:

selecting the frequency band and a bandwidth of the frequency band (i.e., the bandwidth of the frequency band (e.g., C_1) is selected to be scan (monitored)) (figures 2 and 7 and column 9 lines 1-30);

scanning (passively monitoring) the frequency band to determine whether the frequency band is acceptable for the desired radio (wireless) communication (abstract, figures 2, 4, and 7-9, column 2 line 65 - column 3 line 17, column 3 lines 38-48, column 4 lines 27-39, column 7 lines 48-65, and column 9 lines 4-17); and

selecting the frequency band for the desired radio (wireless) communication if the frequency band is determined to be acceptable by said scanning (passive monitoring) (abstract, figures 2, 4, 7-9, column 3 lines 1-6 and 11-17, column 5 lines 8-12, and column 9 lines 9-30).

Consider **claim 24**, and **as applied to claim 22 above**, Van De Berg further shows and discloses that said scanning (passive monitoring) step includes monitoring interference associated with the frequency band (abstract, figure 7 step 3, figure 8 step 13, figure 9 step 24, column 3 lines 1-6 and 11-17, column 9 lines 6-8, column 9 lines 57-62, and column 10 lines 46-50).

Consider **claim 25**, and **as applied to claim 24 above**, Van De Berg also discloses that said scanning (passive monitoring) step includes making an RSSI measurement with respect to the frequency band (column 4 lines 57-64 and column 10 line 66 - column 11 line 3).

Consider **claim 26**, and **as applied to claim 22 above**, Van De Berg further shows and discloses that said scanning (passive monitoring) step includes scanning (passively monitoring) a plurality of carrier (narrow) frequency bands, and combining results of said scanning (passive monitoring) of said carrier (narrow) frequency bands to produce a wide band result corresponding to said at least one frequency band (figure 7 steps 2-6 and column 9 lines 4-30).

Consider **claim 29**, and **as applied to claim 22 above**, Van De Berg also discloses that said scanning (passive monitoring) step includes each of two wireless communication stations 30, 34, 40 (figures 11-13) scanning (passively monitoring) at least some of said plurality of available frequency bands (column 2 line 65 - column 3 line 7, column 5 line 21 - column 6 line 2, and column 14 lines 1-8).

Consider **claim 30**, and **as applied to claim 29 above**, Van De Berg further discloses the step of including one of said wireless communication stations 30, 34, 40 communicating with the other of said wireless communication stations 30, 34, 40 regarding results of said scanning (passive monitoring) (figures 11-13, column 5 line 21 -

column 6 line 2, and column 14 lines 1-8).

Consider **claim 32**, and **as applied to claim 22 above**, Van De Berg further discloses that said scanning (passive monitoring) step includes a wireless communication station 30, 34, 40 scanning (passively monitoring) a plurality (group) of available frequency bands (abstract, figures 2, 4, and 7-9, column 4 lines 27-39, column 6 lines 20-39, column 9 lines 3-21, and column 12 line 41 - column 13 line 5), and said selecting step including the wireless communication station 30, 34, 40 selecting the at least one frequency band for the desired radio (wireless) communication and informing another wireless communication station 30, 34, 40 of the selected frequency band (column 12 line 40 - column 13 line 5 and column 14 lines 1-8).

Claims 2, 6, 7, 21, 23, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Van De Berg (U.S. Patent # 5,907,812)** in view of **well known prior art (MPEP 2144.03)**.

Consider **claims 2 and 23**, and **as applied to claims 1 and 22 above**, Van De Berg clearly shows and discloses the claimed invention except that said scanning (passive monitoring) step includes monitoring communication quality associated with the plurality of carrier frequency bands.

Nonetheless, the Examiner takes Official Notice of the fact that it is notoriously well known in the art to monitor the communication quality associated with a frequency band in order to determine whether or not said frequency band is acceptable for a desired communication.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the teachings of Van De Berg to specifically monitor the communication quality of at least one available frequency band in order to determined if said at least one available frequency band is acceptable for a desired communication as known in the prior art. Such feature provides an additional parameter to be used for selecting an available frequency band in Van De Berg's invention in accordance with the desired communication.

Consider **claims 6, 7, 21, 27, and 28**, and **as applied to claims 1, 5, and 13 above**, Van De Berg further discloses that his invention can be applied to several different technologies operating on the same geographical area and using the same frequency band (column 1 lines 57-63). However, Van De Berg does not specifically disclose that the wireless communication station is one of a Bluetooth station and an IEEE 802.11b station (claim 21), that the wide frequency band is an IEEE 802.11b (claims 6 and 27), or that at least one of the frequency bands is a Bluetooth 2.0 band (claims 7 and 28).

Nonetheless, the Examiner takes Official Notice of the fact that it is notoriously well known in the art that IEEE 802.11b and Bluetooth 2.0 are well known standards in which wireless communication stations operate and they operate within the same frequency band (i.e., 2.4 GHz).

Therefore, as suggested by Van De Berg, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to operate the teachings of Van De Berg for a Bluetooth or an IEEE 802.11b station in an IEEE 802.11b frequency band or in a Bluetooth 2.0 frequency band since these standards operate in the same frequency band as well known in the art and with the teachings of Van De Berg interference can be avoided and management of the frequency band can be efficiently accomplished between the wireless communication stations.

Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Van De Berg (U.S. Patent # 5,907,812)** in view of **West (U.S. Patent # 5,574,979)**.

Consider **claims 11 and 31**, and **as applied to claims 1 and 22 above**, Van De Berg clearly shows and discloses the claimed invention except that the plurality of carrier frequency bands includes a frequency band associated with microwave oven interference.

In the same field of endeavor, West clearly shows and discloses a method for avoiding periodic interference in a wireless communication system in which user supported radio terminals and radio base stations monitor a frequency band for the presence of periodic interference caused by a microwave oven 4501 (figure 45) (i.e., frequency band associated with microwave oven interference) and transmit when interference is absent in said frequency band (figure 45, column 3 line 64 - column 4 line 23, column 5 line 62 - column 6 line 6, and column 61 lines 15-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of West into the method of Van De Berg in order to optimize the selection of the frequency band by monitoring a frequency band associated with microwave oven interference and transmitting in said band during acceptable periods when interference is not present. Such feature would optimized the communication procedure (West; column 61 lines 15-22).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Van De Berg (U.S. Patent # 5,907,812)** in view of **Souissi et al. (U.S. Patent # 6,327,300 B1)**.

Consider **claim 17**, and **as applied to claim 13 above**, Van De Berg further shows and discloses a wireless communications interface (transmitter & modulator 44 and receiver & demodulator 45) (figures 11-13) coupled between said antenna 31, 35 and said band selection controller (combination of scanning means 52 and central control and application logic 51) (figures 11-13), said wireless communications interface (transmitter & modulator 44 and receiver & demodulator 45) cooperable with said antenna 31, 35 for receiving and providing to said band selection controller (combination of scanning means 52 and central control and application logic 51) a scanning (passive monitoring) result which is associated with the at least one frequency band and which has been obtained and transmitted by another wireless communication station 30, 34, 40 (column 5 line 21 - column 6 line 2, column 6 lines 20-39, column 12 line 41 - column 13 line 5, and column 14 lines 1-8).

However, Van De Berg fails to specifically disclose that said band selection controller (combination of scanning means 52 and central control and application logic 51) is operable for determining whether the at least one frequency band is acceptable for the desired radio (wireless) communication in response to said result received from said another wireless communication station 30, 34, 40.

In the same field of endeavor, Souissi et al. clearly show and disclose an apparatus for dynamic spectrum allocation in which a transceiver 10 (wireless communication station) (figure 1) includes a processor or controller 12 (band selection controller) that receives a communication request from a second transceiver device (another wireless communication station) on a dynamically selected portion of the spectrum (at least one frequency band) selected (as result of monitoring) by the second transceiver device (another wireless communication device) (figures 1 and 2, column 2 lines 16-22, and column 2 lines 48-60), said processor or controller 12 (band selection controller) determining whether or not said selected portion of the spectrum (at least one frequency band) is acceptable for the desired wireless communication in response to said request received from said second transceiver device (another wireless communication station) (figure 2, column 2 lines 22-35 and 60-65, and column 3 line 20 - column 4 line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the selection technique taught by Souissi et al. into the wireless communication station of Van De Berg in order to significantly enhanced the dynamic selection of the frequency band to be used in the desired communication by, for example, accounting for unknown interferers to one of the transceiver devices during the selection process (Souissi et al.; column 3 lines 37-44).

(10) Response to Argument

a) Regarding independent **claim 1**

Applicant argues:

i) That Van de Berg fails to disclose *combining the interference information of said each of the frequency bands to produce a signal quality indication* (page 5 and page 6 second paragraph - page 7 second paragraph of the brief) because Van de Berg detects interference at a carrier frequency position at step 3 of figure 7 then a pass/fail decision is made at step 4 for that carrier frequency position based only on interference detected at that carrier frequency position and does not disclose that interference detected at any other carrier frequency position is considered in the pass/fail decision at step 4 (Van de Berg; column 9 lines 6-17) (see page 5 of the brief) and further states that "the result of the scan *at the particular carrier frequency position* will be processed in step 5 "FORM BAND"" (Van de Berg; column 9 lines 15-17) (see page 6 second paragraph of the brief). Therefore, "only the scan result at one frequency is considered when that frequency is concatenated with other frequencies at step 5" since Van de Berg can only mean by "the result of the scan at the particular carrier frequency position *will be processed* in step 5 "FORM BAND"" that "individual frequencies are concatenated to form a frequency band at step 5 (FORM BAND) based on the threshold test at step 4" (Van de Berg; column 9 lines 18-21) (see page 6 second paragraph - page 7 line 3 of the brief). Furthermore, the "Examiner mischaracterizes Van de Berg's disclosure and ignores the language of claim 1" because "Van de Berg states *the result of the scan at the particular carrier frequency position* will be processed in step 5 "FORM BAND"", the "Examiner has changed result of the scan at a particular frequency to results of the scanning step ... are combined" (page 7 first paragraph of the brief), and the "combining step is not directed to combining frequencies" (page 7 second paragraph of the brief).

Examiner answers:

i) Applicant's interpretation of Van de Berg's disclosure as relied upon by the Examiner and as it relates to the claimed step of *combining the interference information of said each of the frequency bands to produce a signal quality indication* is incorrect and furthermore fails to account for the entire description of figure 7. Van de Berg clearly discloses said combining step in column 9 lines 18-33, where Van be Berg specifically states that "In general, in step 5 a **concatenation** of carrier frequency positions is formed, having the width of the communication frequency bandwidth of the system and which is **essentially free of interference**". Clearly this portion of Van de Berg's disclosure set forth a step in which the interference information of each carrier frequency position (i.e., whether or not the carrier frequency band is free from interference) is combined to produce a signal quality indication (i.e., by concatenating the carrier frequency positions to formed a width of frequency band essentially free of interference (free of interference being interpreted by the Examiner as the signal quality indication). Furthermore, Van de Berg also discloses that if the string of carrier frequencies positions does not cover the required communication bandwidth, the scan has to be repeated until an interference free part of the radio frequency band has been detected (Van de Berg; figure 7 step 6 and column 9 lines 22-30). Applicant's argument does not account for these citations in Van de Berg's disclosure, which was relied upon by the Examiner in the rejection. Therefore, the Examiner maintains that Van de Berg teaches the claimed step of *combining the interference information of said each of the frequency bands to produce a signal quality indication* and respectfully requests the Board to sustain this rejection.

Applicant also argues:

ii) That Van De Berg fails to disclose producing a signal quality indication as required by claim 1 since the "signal quality indication" is produced in the step of "combining the interference information of said each of the frequency bands to produce a signal quality indication" and since Van De Berg fails to disclose the step of combining, Van De Berg also fails to disclose producing the signal quality indication as required by claim 1.

Examiner answers:

ii) As explained in the answer to Applicant's argument i) above, Van de Berg clearly discloses producing a signal quality indication when he discloses forming a concatenation of carrier frequency positions having a width … **essentially free of interference** (column 9 lines 18-21) (free of interference being interpreted by the Examiner as the signal quality indication). Furthermore, the language of claim 1 implicitly sets forth that the signal quality indication is related to the interference information hence a width of frequency band that is **essentially free of interference** sets forth a frequency bandwidth with good signal quality. Therefore, the Examiner maintains that Van de Berg teaches producing a signal quality indication as required by claim 1 and respectfully requests the Board to sustain this rejection.

Applicant further argues:

iii) That Van De Berg fails to disclose the step of "selecting the plurality of frequency bands for the desired wireless communication in response to the signal quality indication" because Van de Berg does not discloses "combining the interference information of said each of the frequency bands to produce a signal quality indication" since he selects each individual carrier each individual carrier frequency based only on the interference detected at step 3 (Figure 7) for that carrier frequency, thus, Van De Berg necessarily does not disclose "selecting the plurality of frequency bands for the desired wireless communication in response to the signal quality indication"' as required by claim 1.

Examiner answers:

iii) As explained in the answer to Applicant's arguments i) and ii) above, Van de Berg clearly discloses selecting the plurality of frequency bands for the desired wireless communication in response to the signal quality indication in figure 7 steps 3-5 and column 9 lines 6-21 where he discloses that the result of the scan will be processed in step 5 "FORM BAND" in which a concatenation of carrier frequency positions is formed covering the width of the desired communication frequency bandwidth which is **essentially free of interference**. As opposed to Applicant's argument, the results of the scan are combined to form a communication bandwidth free of interference (i.e., having good signal quality) in Van de Berg (column 9 lines 14-21), therefore, the Examiner maintains that Van de Berg teaches selecting the plurality of frequency bands for the desired wireless communication in response to the signal quality indication as required by claim 1 and respectfully requests the Board to sustain this rejection.

b) <u>Regarding independent **claim 13**</u>

Applicant argues:

i) That Van de Berg fails to disclose bandwidth selection (pages 9 and 10 of the brief).

Examiner answers:

i) Applicant's interpretation of Van de Berg's disclosure as relied upon by the Examiner and as it relates to the claimed bandwidth selection is incorrect. Van de Berg does disclose, in figure 2 and column 9 lines 6-13, bandwidth selection as currently claimed when he discloses selection of a carrier frequency position for scanning. Each carrier frequency position (e.g., C^1_1, C^1_2, etc ...) is a **narrow band** channel that will be scanned to determined whether or not is acceptable for selection to form, by itself or in combination with other acceptable available carrier frequency positions (i.e., narrow band channels), the at least one frequency band for the desired communication) (figures 2 and 7 and column 9 lines 1-30). Furthermore, the teachings of Van de Berg are consistent with page 9 lines 19-22 of Applicant's specification where it is disclosed that the band selector may select a narrow band channel for observation. Therefore, the Examiner maintains that Van de Berg teaches bandwidth selection as required by claim 13 and respectfully requests the Board to sustain this rejection.

Applicant also argues:

ii) That the "instant specification discloses that the band selector 34 (Figure 3) may select a wide (or narrow) band channel for observation in response to user input 30 and/or the current channel quality information on lead 35 (page 9, lines 19-22). If narrow frequency bands are observed, the band selector 34 is operable to sum the energy in the narrow band measurements to produce a resultant wide band measurement (pages 10 and 11 of the brief).

Examiner answers:

ii) In response to Applicant's argument that the references fail to show certain features of Applicant's invention, it is noted that the features upon which Applicant relies (i.e., the band selector selecting a wide or narrow band channel for observation in response to user input and/or the current channel quality information and if narrow frequency bands are observed, the band selector is operable to sum the energy in the narrow band measurements to produce a resultant wide band measurement) are not recited in the **rejected claim 13**. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, even if these limitations were recited in claim 13, Van de Berg, as explained above, still would have met them because he discloses selection of a carrier frequency position for scanning, wherein each carrier frequency position (e.g., C^1_1, C^1_2,, etc ...) is a **narrow band** channel that will be scanned to determined whether or not is acceptable for selection to form, by itself or in combination with other acceptable available carrier frequency positions (i.e., narrow band channels), the at least one frequency band for the desired communication) (figures 2 and 7 and column 9 lines 1-30).

c) <u>Regarding independent **claim 22**</u>

Applicant argues:

i) That Van de Berg fails to disclose bandwidth selection (pages 11-13 of the brief).

Examiner answers:

i) Applicant's interpretation of Van de Berg's disclosure as relied upon by the Examiner and as it relates to the claimed bandwidth selection is incorrect. Van de Berg does disclose, in figure 2 and column 9 lines 6-13, bandwidth selection as currently claimed when he discloses selection of a carrier frequency position for scanning. Each carrier frequency position (e.g., $C^1{}_1, C^1{}_2$, etc ...) is a **narrow band** channel that will be scanned to determined whether or not is acceptable for selection to form, by itself or in combination with other acceptable available carrier frequency positions (i.e., narrow band channels), the at least one frequency band for the desired communication) (figures 2 and 7 and column 9 lines 1-30). Furthermore, the teachings of Van de Berg are consistent with page 9 lines 19-22 of Applicant's specification where it is disclosed that the band selector may select a narrow band channel for observation. Therefore, the Examiner maintains that Van de Berg teaches bandwidth selection as required by claim 22 and respectfully requests the Board to sustain this rejection.

Applicant also argues:

ii) That the "instant specification discloses that the band selector 34 (Figure 3) may select a wide (or narrow) band channel for observation in response to user input 30 and/or the current channel quality information on lead 35 (page 9, lines 19-22). If narrow frequency bands are observed, the band selector 34 is operable to sum the energy in the narrow band measurements to produce a resultant wide band measurement (page 13 of the brief).

Examiner answers:

ii) In response to Applicant's argument that the references fail to show certain features of Applicant's invention, it is noted that the features upon which Applicant relies (i.e., the band selector selecting a wide or narrow band channel for observation in response to user input and/or the current channel quality information and if narrow frequency bands are observed, the band selector is operable to sum the energy in the narrow band measurements to produce a resultant wide band measurement) are not recited in the **rejected claim 22**. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, even if these limitations were recited in claim 13, Van de Berg, as explained above, still would have met them because he discloses selection of a carrier frequency position for scanning, wherein each carrier frequency position (e.g., C^1_1, C^1_2,, etc ...) is a **narrow band** channel that will be scanned to determined whether or not is acceptable for selection to form, by itself or in combination with other acceptable available carrier frequency positions (i.e., narrow band channels), the at least one frequency band for the desired communication) (figures 2 and 7 and column 9 lines 1-30).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the Examiner in the Related Appeals and Interferences section of this Examiner's Answer.

(12) Conclusion

Therefore, in view of the above reasons and having addressed each of Appellant's arguments, it is believed that the rejections should be sustained.

Respectfully submitted,

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